Clinical Reasoning Cycle in Action

Patient Scenario:

Sarah, a 40-year-old woman, visits the emergency department with severe abdominal pain, nausea, and vomiting. She reports a previous history of gallstones and is experiencing these symptoms for the past 12 hours.

- **Consideration of patient information and cues:**

Sarah's medical history, symptoms, and the duration of her pain are important cues. The healthcare professional recognizes the need to gather more information to form a comprehensive understanding of her condition.

- **Gathering additional data through assessments and examinations:**

The healthcare professional performs a physical examination, checking vital signs and assessing Sarah's abdomen for tenderness and rigidity. They also order blood tests and an ultrasound to assess the gallbladder.

- **Formulating hypotheses and generating possible diagnoses:**

Based on the information gathered, the healthcare professional considers possible diagnoses such as gallstone obstruction, cholecystitis (inflammation of the gallbladder), or pancreatitis.

- **Testing and evaluating hypotheses through further examination and analysis:**

To confirm the diagnosis, the healthcare professional reviews the ultrasound results, which reveal gallstones and signs of inflammation in the gallbladder. They also check the blood tests, which show elevated liver enzymes and amylase levels, indicating possible pancreatitis.

- **Developing a management plan and implementing interventions:**

With the diagnosis of gallstone-related complications, the healthcare professional develops a management plan. They provide pain relief medication, initiate intravenous fluids, and consult a surgeon for a potential laparoscopic cholecystectomy.

- **Reflecting on the process and learning from the experience:**

After the interventions, the healthcare professional monitors Sarah's response to treatment, assessing her pain levels, monitoring vital signs, and evaluating laboratory results. They reflect

on the effectiveness of the interventions and consider any potential modifications or further actions required.

This case study demonstrates how the clinical reasoning cycle is applied in a real-life scenario. The healthcare professional carefully considers the patient's symptoms, gathers relevant data, generates hypotheses, tests and evaluates them, develops a management plan, and reflects on the outcomes. Through this systematic approach, the healthcare professional can provide Sarah with appropriate care, ensuring prompt diagnosis, effective interventions, and optimal patient outcomes.